



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,092	01/19/2004	Mitsuhiro Hirabayashi	450100-04887	2150
7590 07/10/2008				
William S. Frommer, Esq. FROMMER LAWRENCE & HAUG LLP 745 Fifth Avenue New York, NY 10151				
EXAMINER				
MOBIN, HASANUL				
ART UNIT		PAPER NUMBER		
2168				
MAIL DATE		DELIVERY MODE		
07/10/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/760,092

**Applicant(s)**

HIRABAYASHI ET AL.

**Examiner**

HASANUL MOBIN

**Art Unit**

2168

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4/3/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11-35, 37-41 and 43-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-35, 37-41 and 43-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-089)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Remarks***

1. This communication is in response to the amendment filed April 3, 2008, Claims 10, 36 and 42 have been cancelled. Therefore, claims 1-9, 11-35, 37-41 and 43-48 are pending in this office action for examination.

### ***Response to Amendment***

2. As per the rejection of claims 1, 5, 7, 9, 11, 38-41 and 43 under 35 U.S.C. 101, this rejection is maintained see reason in the response to argument section.

Objection to the claims 1, 5, 7, 9, 11, 32-35, 37-41 and 43 are withdrawn because of the Applicant's amendment to the claims.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1, 5, 7, 9, 11, 38-41 and 43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1, 5, 7, 9, 11, 38-41 and 43 lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or act to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at

best, functional descriptive material *per se*. Merely claiming functional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Claims 1, 5, 7, 9, 11, 38-41 and 43 are directed towards software *per se* because it is merely software modules (i.e., units) without any physical components to represent the apparatus. Software *per se*, which is not patent eligible subject matter since it does not contain any structure that would allow it to be either a manufacture, machine, or composition of matter.

All claims dependent thereon, namely claims 2-4, 6-9, 12-31 and 44, fail to remedy these deficiencies, and are rejected for at least the same reasons.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-9, 11-35, 37-41 and 43-48 rejected under 35 U.S.C. 102 (b) as being anticipated by Inokuchi et al. (U.S. Patent No. 6,144,969, 'Inokuchi' hereafter).

**Regarding claims 1, 32 and 38, Inokuchi** teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use, should be replaced with "when recording"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium, said index file having a series of entries each being a block of extract information relating to and coordinated with one of the files recorded on the recording medium (In order to record data in the CD-R disc DISC in the CD-R disc device 1 started up, the CPU 6 divides the data made by the user into blocks according to a predetermined format under the control of CDRFS. Then the CPU 6 transmits the divided data and an instruction to the CD-R drive 5 so as to write the data via the interface circuit 13. When receiving the instruction, the CD-R drive 5 sequentially records the data for the data unit referred to as packet on the CD-R disc DISC, Inokuchi, Col 5, lines 42-45 and Fig. 1, 3 and 4);

said index file comprising respective files, each associated with a different attribute and each including a header and data related to said attribute (As shown in FIG. 11(B), the program area is further divided. In the case of the 3 data track, the program area is divided into three tracks. At this time, the head of each track is provided with an index area (Index) and index information of the track is recorded on this part. Further, as shown in FIG. 11(C), the track comprises a collection of packet which

constitutes a basic unit of data writing. As shown in FIG. 11(D), this packet is divided into four parts, a link block, a run in block, a user data block having user data such as file information or the like and a run out block, Inokuchi, Col 14, lines 65-67, Col 15, lines 1-7 and Fig. 11 (A)-(D)).

**Regarding claim 2,** Inokuchi teaches that said index file generation means sets the reproduction order within a group of those entries which are selected from among the entries provided in the index file (The cache manager CAM creates a list of blocks to be written on the CD-R disc DISC in accordance with a predetermined priority from among the write cache block in accordance with the request at step SP1 of FIG. 10, Inokuchi, Col 13, lines 7-42)

**Regarding claim 3,** Inokuchi teaches that the group of entries is a group of those entries which correspond to favorite ones of the files selected by a user (user data (block data) of the sequence file created by the user, Inokuchi, Col 15, lines 12-15 and Col 13, lines 7-12).

**Regarding claim 4,** Inokuchi teaches that said index file generation means forms an entry which describes the reproduction order in the form of a table in the index file to set information representative of the reproduction order to the index file (an index node D constituting the intermediate node of B\*tree (B star-tree), the sequence key SQK (key1, key2, key3, . . . ) of each head extent information EXT<sub>x</sub> of each of the corresponding leaf nodes E, F or G is stored together with the node number. When the sequence keys (key1, key2, key3, . . . ) are designated, the leaf nodes E, F or G

corresponded by the node number are read out from the physical address LBA on the CD-R disc by referring to the node table, Inokuchi, Col 7, lines 28-35 and Fig. 4 and 5).

**Regarding claims 5, 33 and 39, Inokuchi** teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "when recording"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract information relating to and coordinated with one of the files (Please see claim 1 for this limitation);

said index file generation means dividing the extract information relating to any of the files to generate the index file, which includes a plurality of entries (As shown in FIG. 11(B), the program area is further divided. In the case of the 3 data track, the program area is divided into three tracks. At this time, the head of each track is provided with an index area (Index) and index information of the track is recorded on this part. Further, as shown in FIG. 11(C), the track comprises a collection of packet which constitutes a basic unit of data writing. As shown in FIG. 11(D), this packet is divided into four parts, a link block, a run in block, a user data block having user data such as file information or the like and a run out block, Inokuchi, Col 14, lines 65-67, Col 15, lines 1-7 and Fig. 11 (A)-(D));

said index file generation means setting, to the entry of the divided extract information, as information representative of a mutual relationship between the entries, information indicative of an entry in which the succeeding divisional extract information is recorded (a recording state of the data onto the CD-R disc. In the multi-session packet recording method, a plurality of sessions (Session 1, Session 2, . . . ) are subsequently recorded from the inner periphery to the external periphery on the CD-R disc in a spiral manner. On the inside of the recording area, a power calibration area (PCA) and a program memory area (PMA) are secured so that information for power adjustment and management information in each session can be recorded, Inokuchi, Col 14, lines 47-64 and Fig. 11, also please see Col 6, lines 55-67 and Col 7, lines 1-8);

said index file generation means setting, to the entry in which the succeeding divisional extract information is recorded, an identifier indicating that the entry has the succeeding divisional extract information recorded therein (Each session comprises a program area in which block data of the sequence (file) created and renewed by the user, and a lead-in area in which lead-in information representative of the start of the session and lead-out information representative of the end of the session is recorded. Incidentally, the lead-in information and the lead-out information is to be recorded after one session portion of the file data is recorded in the program area. The information is intended to have compatibility with the CD-ROM, Inokuchi, Col 14, lines 56-64 and Fig. 11).

**Regarding claim 6, Inokuchi** teaches that said index file generation means groups pieces of the extract information for each attribute to generate the index file and



sets, to the index file, an identifier indicating to which one of the groups each of the pieces of the divisional extract information belongs (Inokuchi, Fig. 5).

**Regarding claims 7, 34 and 40, Inokuchi** teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "when recording"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract information relating to and coordinated with one of the files (Please see claim 1 for this limitation);

said index file generation means setting, where the files recorded on the recording medium include a plurality of child files generated by dividing one set of contents and a parent file for managing the plural child files, to the entries relating to the child files and the parent file, as information representative of a mutual relationship between the entries, identifiers indicating that the files are the child files and the parent file, respectively (Inokuchi, Fig. 4 Sequence B\*Tree, D Index Node (i.e., parent) and leaf node E-G (i.e., child) and identifiers keys1, keys 2... Wherein "for" is interpreted to be intended use).

**Regarding claim 8, Inokuchi** teaches that said index file generation means sets, to the entries relating to the child files, information which indicates the entry relating to the parent file (please see claim 7 for this limitation).

**Regarding claims 9, 35 and 41**, Inokuchi teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "when recording"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract information relating to and coordinated with one of the files (Please see claim 1 for this limitation);

said index file generation means registering information of file formats of the files into corresponding ones of the entries (Super block structure (i.e., format information of the files), Inokuchi, Col 15, lines 20-67 and Fig. 12-13. Please also see Col 5, lines 42-50).

**Regarding claims 11, 37 and 43**, Inokuchi teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "when recording"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract information relating to and coordinated with one of the files (Please see claim 1 for this limitation. Wherein "for generating" is interpreted to be intended use);

said index file generation means registering information unique to processing means for the files and information for specifying the processing means relating to the unique information (Super block information is unique information for the file to be processed, Inokuchi, Col 15, lines 20-67 and Fig. 12-13. Wherein "for" is interpreted to be intended use).

**Regarding claim 12, Inokuchi** teaches that said index file generation means registers the unique information into the index file by setting the unique information to the corresponding entries (Node table sets unique information to the corresponding leaf nodes such as nodes E, F and G, Inokuchi, Fig. 5).

**Regarding claim 13, Inokuchi** teaches that said index file generation means registers the unique information into the index file by setting reference destinations of the unique information to the corresponding entries (Please see claim 12 for this limitation).

**Regarding claim 14, Inokuchi** teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (B\*tree (B Star-tree) of the sequence manager SQM (sequence keys are managed by SQM) has a tree structure which is constituted by an index node K as an intermediate node (branch) and leaf nodes E, F and G which actually contain the extent (EXTx) showing correspondence between the logical address and the physical address. Each leaf node E, F, and G stores single or a plurality of extent EXTx representing the relation between the logical address and the physical address LBA, which is shown by the sequence key SQK, in the ascending

order of the sequence key SQK. More specifically, the extent EXT<sub>x</sub> manages (or represents) a block array in which the sequence key SQK continues in the ascending order as one unit out of the blocks sequentially in array on physical location on the CD-R disc. The extent EXT<sub>x</sub> consists of the sequence key SQK in the head block of sequential physical block managed by the extent EXT<sub>x</sub>, the physical address LBA corresponding to the sequence key SQK, and length. The length represents a continuous physical block number represented by the extent EXT<sub>x</sub> with the physical address LBA placed at the front in which the length is included. Consequently, for example, when the extent EXT<sub>x</sub> is represented by (0,0 56 5), the physical address LBA on the CD-R disc corresponding to the sequence key SQK (logical address) which is referred to as 0,0 is 56, which represents that the data represented by the extent continues five blocks with the physical address LBA (=56) placed at the head on the CD-R disc (Inokuchi, Col 6, lines 50-67, Col 7, lines 1-50 and Fig. 3-5).

**Regarding claim 15, Inokuchi** teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

**Regarding claim 16, Inokuchi** teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

**Regarding claim 17, Inokuchi** teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

**Regarding claim 18, Inokuchi** teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

**Regarding claim 19, Inokuchi** teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

**Regarding claim 20, Inokuchi** teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

**Regarding claim 21, Inokuchi** teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

**Regarding claim 22, Inokuchi** teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

**Regarding claim 23, Inokuchi** teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

**Regarding claim 24, Inokuchi** teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

**Regarding claim 25, Inokuchi** teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

**Regarding claim 26, Inokuchi** teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

**Regarding claim 27, Inokuchi** teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

**Regarding claim 28, Inokuchi** teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

**Regarding claim 29, Inokuchi** teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

**Regarding claim 30**, Inokuchi teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

**Regarding claim 31**, Inokuchi teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

**Regarding claims 44, 45, 46, 47 and 48**, Inokuchi teaches that the said index file generation means sets to the index file, as information representative of a mutual relationship between the entries, information indicative of a reproduction order of the entries or of the files corresponding to the entries (a recording state of the data onto the CD-R disc. In the multi-session packet recording method, a plurality of sessions (Session 1, Session 2, . . . ) are subsequently recorded from the inner periphery to the external periphery on the CD-R disc in a spiral manner. On the inside of the recording area, a power calibration area (PCA) and a program memory area (PMA) are secured so that information for power adjustment and management information in each session can be recorded, Inokuchi, Col 14, lines 47-64 and Fig. 11, also please see Col 6, lines 55-67 and Col 7, lines 1-8).

### ***Response to Arguments***

7. Applicant's arguments filed April 3, 2008 have been fully considered but they are not persuasive.

8. In response to applicant's argument on page 18 that "Applicants respectfully traverse the 35 U.S.C. § 101 rejection. Applicants submit that claims 1, 5, 7, 9, 11, 39-41, and 43 are directed to "apparatus" and elements are in mean-plus-function form. Applicants submit that apparatus is a statutory subject matter under 35 U.S.C. § 101. Applicants further submit that Court Appeals of Federal Circuit (CAFC) holds that "means" can read on software instrumentation. Applicants respectfully submit that claim 38 is directed to "apparatus" that is a statutory subject matter", ", is acknowledged but not deemed to be persuasive. Applicant is invoking 35 U.S.C. § 112 6<sup>th</sup> paragraph. Examiner submits that the Applicant did not provide enough specific information such as which pages and paragraph of the specification and which Figures constitute these claims statutory to withdraw the rejection under 35 U.S.C. § 101.

9. In response to applicant's argument on page 19 that "the Office Action incorrectly interprets Inokuchi because Figure 1, 3, 4 and 11 of Inokuchi describe structure of the content file itself corresponding to one file recorded on recording medium but NOT the structure of the index file, as recited in claim 1. Applicants respectfully submit that Inokuchi fails to disclose or teach the above-identified features of claim 1", is acknowledged but not deemed to be persuasive. Inokuchi's teaching of generating structure of the content of recording file anticipate generating the index file as recited in claim 1. Inokuchi's technique and process of generating structure of the content of



recording file teaches generating the index file as recited in claim 1. It is with respect submitted herein above.

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **HASANUL MOBIN** whose telephone number is (571)270-1289. The examiner can normally be reached on **Monday Thru Friday 5:30 to 1:00 and Saturday and Saturday.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. M./  
Examiner, Art Unit 2168

/DEBBIE M LE/  
Primary Examiner, Art Unit 2168